

of the addition of water a solution of 21.3 g (0.125 mol) of isophoronediamine and 8.6 g (0.083 mol) of diethylenetriamine in 40 g of acetone is added over the course of five minutes.

Subsequently the acetone is distilled off under reduced pressure and the product is diluted with water to 30% solids content.

Inventive example 1

The same procedure as in the comparative example is used, but using, instead of the N-methylpyrrolidone, the same mass of N-ethylpyrrolidone.

Inventive Example 2

The same procedure as in the comparative example is used, but using, instead of the N-methylpyrrolidone, the same mass of N-cyclohexylpyrrolidone.

These polyurethane dispersions were used to produce coating materials, which were investigated for steam resistance as follows:

For this purpose the coating material under test is drawn down twice using a box-type coating bar, at 180 μm each time, onto macore. The first coat is dried at room temperature, and, after the second coat, drying takes place at 60°C for 16 h.

In a 250 ml Erlenmeyer flask, water is heated to boiling, and the coated board is placed with its coated side onto the opening and weighted.

After 5 minutes' steam exposure the film is evaluated as follows:

Score	Evaluation
0	film shows no change
1	film is slightly discolored
2	film is severely discolored
3	film is slightly damaged
4	film is severely damaged
5	film is completely destroyed

With the polyurethane dispersions above, the films gave the following evaluations:

Example	Score
Comparative	2
Inventive 1	0
Inventive 2	0

Coating materials based on polyurethane dispersions in which the polyurethanes have been prepared with one of the as-claimed solvents therefore exhibit improved steam resistance as compared with N-methylpyrrolidine.

This advantage was already part of the original disclosure content: page 17, line 13.

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further deponent saith not.


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Signature

Date


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